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EROSION-RESISTANT ALLOY STEEL AND ITS MANUFACTURE

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[57] Abstract:

PURPOSE: To manufacture an alloy steel having excellent erosion resistance by mixing metallic powder and ceramic powder, sintering the mixed powder, thereafter subjecting it to hot isostatic pressing treatment and executing heating at a specified temp. **CONSTITUTION:** Metallic powder and ceramic powder are mixed, which

is sintered and is thereafter subjected to hot isostatic pressing treatment, or is heated at 400 to 800°C after subjected to hot isostatic pressing treatment to manufacture a formed body. At this time, as the ceramic powder, titanium-series ceramic powder such as titanium carbide, titanium nitride and titanium boride is incorporated by 20 to 70% volume ratio, and as the balance metallic powder, pure titanium or a titanium alloy is used. In this way, the erosion-resistant alloy steel fitted to the front edge part of a turbine blade rotating at high speed for reducing the erosion therein generated by drains and sand can be obtd. **COPYRIGHT:**

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